

Amendments to the Claims

Please amend the claims in the manner indicated.

1. (currently amended) An apparatus, comprising:
 - a hash circuit to receive first and second input values for a current hash stage and to generate an output value from the current hash stage based on the first and second input values;
 - a numerical sequencer coupled to the hash circuit to generate a sequence of numbers during the current hash stage and to provide at least a portion of a current one of the sequence of numbers as the first input value for a subsequent hash stage;
 - a feedback circuit coupled to the hash circuit to provide at least a portion of the output value as the second input value for the subsequent hash stage; and
 - a control circuit coupled to the numerical sequencer to stop generating the sequence of numbers upon an occurrence of a first predetermined event receipt of a request for a pseudo-random number and to resume generating the sequence of numbers from a value at which the numerical sequencer stopped upon an occurrence of a second predetermined event beginning of a subsequent hash stage.

2-5. (cancelled)

6. (original) The apparatus of claim 1, wherein:

The numerical sequencer includes a counter.
7. (original) The apparatus of claim 1, wherein:

the numerical sequencer includes a linear feedback shift register.
8. (original) The apparatus of claim 1, wherein:

said at least a portion of the current one of the sequence of numbers includes predetermined bits of the current one of the sequence of numbers.
9. (original) The apparatus of claim 1, wherein:

said at least a portion of the output value includes predetermined bits of the output value.
10. (currently amended) A system, comprising:

a processor;
a memory coupled to the processor; and
a pseudo-random number generator coupled to the processor and including:

a hash circuit to receive first and second input values for a current hash stage and to generate an output value from the current hash stage based on the first and second input values;
a numerical sequencer coupled to the hash circuit to generate a sequence of numbers during the current hash stage and to provide at least a

portion of a current one of the sequence of numbers as the first input value for a subsequent hash stage;

a feedback circuit coupled to the hash circuit to provide at least a portion of the output value as the second input value for the subsequent hash stage; and

a control circuit coupled to the numerical sequencer to stop generating the sequence of numbers upon an occurrence of a ~~first predetermined event receipt of a request for a pseudo-random number~~ and to resume generating the sequence of numbers upon an occurrence of a ~~second predetermined event beginning of a subsequent hash stage~~;

wherein the hash circuit is configured to continue to operate while the numerical sequencer is stopped by the occurrence of the ~~first predetermined event receipt of the request for the pseudo-random number.~~

11. (original) The system of claim 10, wherein:
the hash circuit is to receive the first and second input values at a beginning of the current hash stage.

12-14. (cancelled)

15. (original) The system of claim 10, wherein:

The numerical sequencer includes a counter.

16. (original) The system of claim 10, wherein:
the numerical sequencer includes a linear feedback shift register.
17. (original) The system of claim 10, wherein:
said at least a portion of the current one of the sequence of numbers includes predetermined bits of the current one of the sequence of numbers.
18. (original) The system of claim 10, wherein:
said at least a portion of the output value includes predetermined bits of the output value.
19. (currently amended) A method, comprising:
generating a series of values with a numerical sequencer during each of a previous hash stage, a current hash stage, and a subsequent hash stage;
receiving one of the values as a first hash input;
receiving a hash output from the previous hash stage as a second hash input;
hashing the first and second hash inputs during a current hash stage to produce a current hash output;
stopping the generating ~~when a first predetermined event occurs upon receipt of a request for a pseudo-random number~~ and restarting the generating from a value at which the generating stopped ~~when a second predetermined event~~

~~occurs at a beginning of the subsequent hash stage, if the first predetermined event receipt of the request occurs during the current hash stage; and~~

~~continuing the generating during the current hash stage, if the first predetermined event receipt of the request does not occur during the current hash stage.~~

20-21. (cancelled)

22. (currently amended) A machine-readable medium having stored thereon instructions, which when executed by at least one processor cause said at least one processor to perform operations comprising:

generating a series of values with a numerical sequencer during each of a previous hash stage, a current hash stage, and a subsequent hash stage;

receiving one of the values as a first hash input;

receiving a hash output from the previous hash stage as a second hash input;

hashing the first and second hash inputs during a current hash stage to produce a current hash output;

stopping the generating ~~when the first predetermined event occurs upon a request for a pseudo-random number~~ and restarting the generating ~~when a second predetermined event occurs at a beginning of a subsequent hash stage, if a first predetermined event the request occurs during the current hash stage;~~

~~and~~

continuing the generating if ~~the first predetermined event~~ the request does not occur during the current hash stage;
wherein said hashing continues while said generating is stopped between the first and second events.

23-24. (cancelled)